in all probability due to hysteria, which was also present, this symptom not belonging properly to syringomyelia.

Autopsy revealed cavities and segmentation in the cord and immense loss of substance. L. F. B.

NERVE-COMPRESSION DUE TO CALLUS.

In the "Gazette Hebdomadaire de Médecine et de Chirurgie," March 14, 1891, there is an exhaustive paper on this subject that contains much of interest by the late Dr. Trelat. Nerve abnormities following fractures are numerous. Sometimes the cause of the fracture is also the origin of the nerve injury. Again, spicula of the broken bone may lacerate or run through a nerve, or the nerve substance may be imprisoned by the reduction of the fracture. All these possibilities are excluded in the present consideration of nerve-compression.

The author cites a case illustrating the good effects of surgical interference, in which there was compression of the radial nerve following the reduction of a fracture of the humerus in a child of eight. After perfect union was established, there remained a paralysis and atrophy of the extensors and an intensely painful spot just underneath and in front of the epicondyle. There was an extensive and deforming callus at the seat of fracture. Liberation of the nerve resulted in complete use and health of the arm, the child later as a youth winning prizes in athletic sports.

A similar paralysis in a man of forty was treated by the knife, with the result of retarding union of the bone and inducing an abscess at the point of incision. Muscular movements were recovered in time. Paralysis in such cases is not immediate, appearing only one, two or three months after the accident, and progressing slowly as different branches of special nerve-trunks are involved. There is rapid muscular atrophy and sometimes altered sensation. Surgery alone has power to relieve this condition, which in itself is sufficiently serious, the nerve-degeneration being rapid and the compression often setting up an ascending neuritis or myelitis.

Pressure on a nerve may come from underneath as well as from imprisonment, the mass of callus raising and stretching the nerve substance or partially inclosing it in a little channel of osteo-fibrous material or of pure bone. The order of compression depends largely upon the locality of the fracture. In case of pressure from underneath, when the nerve is raised up, instead of being smooth, round, brilliant and glistening, the nerve is flattened, grayish, cloudy and often irregular in outline. When imprisoned by osteo-fibrous material, the nerve may retain its natural rotundity, but has a shrunken appearance within the callus, and presents just beyond it a matty ganglionic swelling analogous to nerve-proliferation in the stump of an amputated limb. The nerve in this instance has the general appearance of a little fibrous cord. The histological manifestation is similar to that resulting from division of a nerve, with this exception: all the fibres in the severed ends of a divided nerve undergo simultaneous degeneration. Not so in degeneration due to this osteo-fibrous compression. One fibre after another is attacked. There is a difference in time, but not in kind, in these processes.

Age is an important factor in the regeneration of nerve-tissue, the best results in surgery like the foregoing being obtained in young subjects. Crushing the callus is insufficient to afford relief. It is imperative to cut down on the nerve, expose it to view, find out the exact cause of compression, and remove it speedily. The difficulty of the operation—Esmarch's bandage should always be used—is chiefly due to changes in anatomical distribution caused by the callus itself. To avoid bewilderment and loss of time, a long incision should be made and the nerve first traced somewhere in its course where its position is normal, instead of beginning to follow it at or too near the callus. If the nerve is simply lodged under a fibrous cover, the bistoury will serve to liberate it. But if true bone imprisons it, a portion must be chiseled away. The callus must then be leveled and made smooth.

In certain instances it may be necessary to suture periostial fibres to prevent future implication of the nerve, or to attach the nerve itself to some neighboring muscle. But such necessities have not yet arisen in the author's practice.

L. F. B.

ATYPICAL FORMS OF MULTIPLE SCLEROSIS.

The "Progrès Médical" for March 11, 1891, contains Dr. J. M. Charcot's lecture upon the foregoing subject. The symptoms of multiple sclerosis are of both cerebral and spinal origin. Among those of spinal origin are spasmodic paraplegia and intention tremor. Embarrassment of speech, a wandering gaze, nystagmus, vertigo, apoplectiform or epileptoid attacks, etc., are cerebral symptoms. The existence of all these disease manifestations constitutes the